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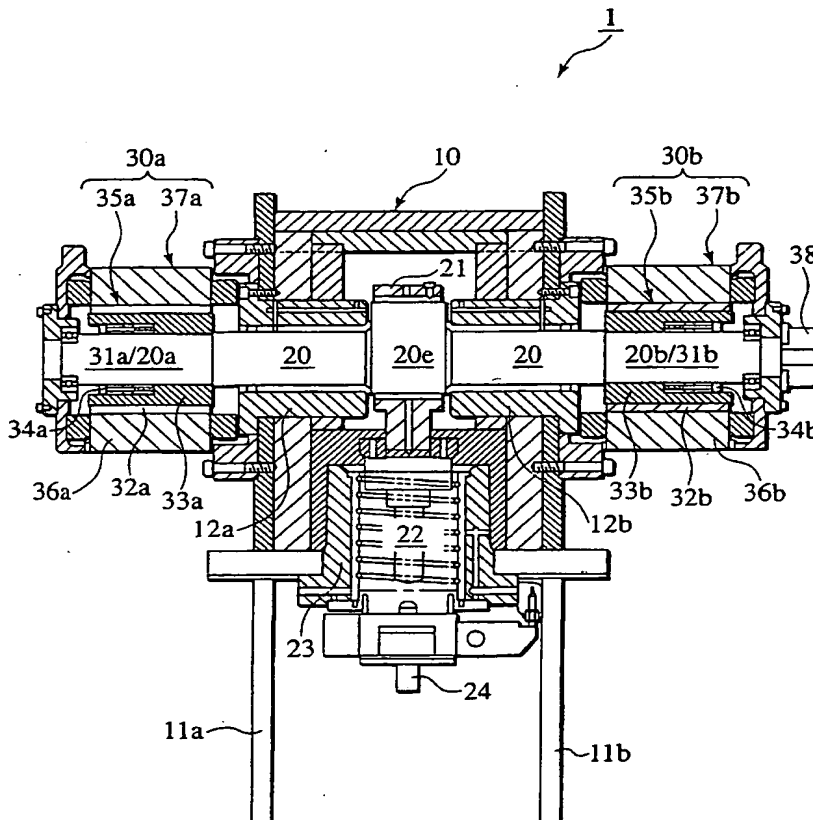
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[続葉有]

(54) Title: SERVO-DRIVE SYSTEM AND CONTINUOUS FINISHING SYSTEM OF PRESS

(54) 発明の名称: プレス機械における、サーボドライブシステム及び連続加工システム



(57) Abstract: A servo-drive system of a press, wherein a pair of servo-motors (30a, 30b) as the power sources of a ram (22) capable of generating a necessary ram pressure by using a torque obtained by synthesizing the same torques based on speed-torque characteristics are mirror-images of each other and installed, opposite to each other, at both ends of an operating shaft (20) vertically moving the ram (22), whereby the operating shaft (20) can be directly driven by operating the pair of servo-motors (30a, 30b) as an integral part.

(57) 要約: ラム 22 の動力源として、互いに同一の速度-トルク特性に基づくトルクを合成して使うことで必要なラム圧力を発生可能な一対のサーボモータ 30a、30b を、互いにミラーイメージで対称に構成し、ラム 22 を上下動させる作動軸 20 の両端に互に対向して設置する。この一対のサーボモータ 30a、30b を一体として動作させることで、作動軸 20 を直接駆動する、プレス機械のサーボドライブシステムである。



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— 国際調査報告書

2文字コード及び他の略語については、定期発行される各PCTガゼットの巻頭に掲載されている「コードと略語のガイダンスノート」を参照。

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

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Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2003
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	JP 2001-62596 A (NS Engineering Corp., Amada Co., Ltd., Kabushiki Kaisha Sogo Anzen Gijutsu Center), 13 March, 2001 (13.03.01), Par. Nos. [0040] to [0079]; Figs. 1 to 11 (Family: none)	1-3, 7, 9 4-6, 8, 10-18
X Y	JP 2000-288792 A (Amada Co., Ltd.), 17 October, 2000 (17.10.00), Par. Nos. [0038] to [0070]; Figs. 1 to 4 (Family: none)	1-3, 7, 9 4-6, 8, 10-18
Y	JP 8-215896 A (Tamagawa Mashinari Kabushiki Kaisha), 27 August, 1996 (27.08.96), Par. Nos. [0032], [0042]; Fig.1 (Family: none)	4, 8, 10, 13, 16

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"O" document referring to an oral disclosure, use, exhibition or other means	
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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0866540 A (ELECTRIC BOAT CORP.), 23 September, 1998 (23.09.98), & US 5952755 A & JP 10-327548 A Par. No. [0045]; Figs. 1, 2	5, 6
Y	JP 2001-62591 A (Amada Co., Ltd., NS Engineering Corp., Kabushiki Kaisha Sogo Anzen Gijutsu Center), 13 March, 2001 (13.03.01), Par. Nos. [0088] to [0104], [0109]; Figs. 8 to 10 (Family: none)	11, 14
Y	JP 8-108229 A (Murata Machinery Ltd.), 30 April, 1996 (30.04.96), Par. Nos. [0019], [0023]; Fig. 1 (Family: none)	11, 14
Y	JP 54-105716 A (Hitachi, Ltd.), 20 August, 1979 (20.08.79), Page 1, right column, lines 5 to 17; Figs. 1, 4 (Family: none)	17, 18
Y	JP 2001-276467 A (Sharp Corp.), 09 October, 2001 (09.10.01), Full text; Fig. 3 (Family: none)	17, 18
P, Y	JP 2002-210600 A (Yamada Dobby Co., Ltd.), 30 July, 2002 (30.07.02), Par. Nos. [0012], [0013], [0046] to [0049]; Fig. 4 (Family: none)	11, 14